

What is claimed is:

1. A light-transmitting module, comprising:

a light-emitting module including a Peltier device and a laser diode mounted on said Peltier device, said Peltier device controlling a temperature of said laser diode;

5 a substrate for installing a plurality of electronic elements;

a heater disposed so as to heat up said light-emitting module and said substrate;

a housing for receiving said light-emitting module, said substrate and said heater therein.

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2. The light-transmitting module according to claim 1, wherein said light-emitting module further includes

a package having a CAN-type with a stem mounting said Peltier device with said laser diode thereon;

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a plurality of lead pins extending from said stem and connected to said substrate; and

a thermistor disposed immediately by said laser diode on said Peltier device, said thermistor monitoring said temperature of said laser diode.

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3. The light-transmitting module according to claim 2, wherein said heater is disposed in a side surface of said stem.

4. The light-transmitting module according to claim 2, wherein said heater is disposed on said substrate so as to come in contact with a side surface of said stem.

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5. The light-transmitting module according to claim 2, wherein said heater is

disposed adjacent to said plurality of lead pins.

6. The light-transmitting module according to claim 1, wherein said light-emitting module further includes

- 5           a package having a box shape with a pair of side walls and a rear wall;  
          a plurality of lead pins extending from respective side walls; and  
          a thermistor disposed immediately by said laser diode on said Peltier device,  
said thermistor monitoring said temperature of said laser diode.

10           7. The light-transmitting module according to claim 6, wherein said heater is  
disposed on said substrate so as to come in contact with said side wall.

8. The light-transmitting module according to claim 6, wherein said heater is  
disposed on said substrate so as to come in contact with said rear wall.

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9. The light-transmitting module according to claim 6, wherein said heater is  
provided in an outer surface of said housing located under said box-shaped package.

10. The light-transmitting module according to claim 1, wherein said heater is  
20   a thin film heater.

11. The light-transmitting module according to claim 1, wherein said plurality  
of electronic elements includes a laser diode controller, a Peltier controller, and a  
heater controller.

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12. The light-transmitting module according to claim 11, wherein

said laser diode controller controls said laser diode such that an optical output of said laser diode is maintained to be a predetermined value.

13. The light-transmitting module according to claim 12, wherein said heater  
5 controller compares an ambient temperature to a preset temperature of said laser diode and, when said preset temperature is higher than said ambient temperature, enables said heater.

14. The light-transmitting module according to claim 12, wherein said Peltier  
10 controller controls said Peltier device so as to set said laser diode to be a preset temperature.